

What is claimed is:

- 1     1.     A method comprising:  
2             passing data through a reconfigurable partial response encoder to create a  
3             spectral notch; and  
4             modifying a characteristic of the reconfigurable partial response encoder to  
5             change a frequency characteristic of the spectral notch.
- 1     2.     The method of claim 1 further comprising pre-coding the data prior to  
2             passing through the reconfigurable partial response encoder.
- 1     3.     The method of claim 2 further comprising passing the data through a spectral  
2             whitening encoder.
- 1     4.     The method of claim 1 wherein modifying a characteristic of the  
2             reconfigurable partial response encoder comprises modifying a clock frequency of  
3             the reconfigurable partial response encoder.
- 1     5.     A method comprising:  
2             detecting errors in a data stream received over a wireless link; and  
3             modifying characteristics of a partial response encoder in a digital data port  
4             to reduce the errors.
- 1     6.     The method of claim 5 wherein modifying characteristics comprises  
2             modifying a clock frequency.
- 1     7.     The method of claim 5 wherein:  
2             the wireless link operates in a frequency band; and  
3             modifying characteristics of a partial response encoder comprises moving a  
4             spectral notch in frequency relative to the frequency band.

- 1 8. The method of claim 7 wherein modifying characteristics comprises  
2 modifying a clock frequency at which the partial response encoder operates.
- 1 9. An apparatus comprising a reconfigurable partial response encoder to  
2 encode data and create a spectral notch in the region of a wireless frequency band.
- 1 10. The apparatus of claim 9 wherein the spectral notch is between about 800  
2 MHz and about 900 MHz.
- 1 11. The apparatus of claim 9 further comprising a low pass filter to reduce  
2 spectral energy in wireless frequency bands above the spectral notch.
- 1 12. The apparatus of claim 9 wherein the reconfigurable partial response  
2 encoder implements  $1-D^4$ .
- 1 13. The apparatus of claim 12 wherein the reconfigurable partial response  
2 encoder operates at a clock frequency of approximately 3.4 GHz.
- 1 14. The apparatus of claim 9 wherein the reconfigurable partial response  
2 encoder implements  $1-D^2$ .
- 1 15. The apparatus of claim 9 wherein the reconfigurable partial response  
2 encoder implements  $1+D$ .
- 1 16. The apparatus of claim 9 wherein the wireless frequency band corresponds  
2 to global positioning system (GPS) signals.
- 1 17. The apparatus of claim 9 wherein the wireless frequency band corresponds  
2 to cellular phone signals.

1 18. The apparatus of claim 9 wherein the wireless frequency band corresponds  
2 to wireless local area network (WLAN) signals.

1 19. An apparatus comprising:  
2 a wireless interface circuit; and  
3 a digital interface circuit that includes a partial response encoder to create a  
4 spectral notch.

1 20. The apparatus of claim 19 wherein the spectral notch is near in frequency to  
2 a frequency of operation of the wireless interface circuit.

1 21. The apparatus of claim 19 wherein the partial response encoder implements  
2  $1 - D^4$ .

1 22. The apparatus of claim 19 wherein the digital interface circuit further  
2 comprises a pre-coder to obviate a need for memory in a receiver.

1 23. The apparatus of claim 19 wherein the wireless interface circuit comprises a  
2 global positioning system (GPS) receiver.

1 24. The apparatus of claim 19 wherein the wireless interface circuit comprises a  
2 cellular phone interface.

1 25. The apparatus of claim 19 wherein the wireless interface circuit comprises a  
2 wireless local area network interface.

1 26. An electronic system comprising:

2           a first integrated circuit including a wireless interface circuit and a digital  
3 data port with a partial response encoder to mitigate interference to the wireless  
4 interface circuit;  
5           a second integrated circuit in digital communication with the digital data  
6 port of the first integrated circuit; and  
7           an omni-directional antenna coupled to the wireless interface circuit of the  
8 first integrated circuit.

1   27.    The electronic system of claim 26 wherein the wireless interface circuit  
2 comprises an apparatus to operate between about 800 MHz and about 900 MHz.

1   28.    The electronic system of claim 26 wherein the wireless interface circuit  
2 comprises an apparatus to operate between about 2.4 GHz and about 2.5 GHz.

1   29.    The electronic system of claim 26 wherein the partial response encoder  
2 includes a filter to implement  $1-D^4$ .

1   30.    The electronic system of claim 26 further comprising an adaptive circuit to  
2 measure errors in data received by the wireless interface circuit and to modify  
3 characteristics of the partial response encoder.